

CLAIMS

What is claimed is:

- Sub  
a
1. A computer implemented method for transforming data in a data warehousing application, comprising the steps of:  
specifying at least one source containing data;  
constructing a plurality of transformation components for manipulating data according to pre-determines sets of rules;  
coupling the transformation components to form one or more pipelines;  
specifying a target for storing data generated by one or more of the pipelines.
  2. The computer implemented method of Claim 1 further comprising the step of staging data in one of the plurality of transformation components.
  3. The computer implemented method of Claim 2 further comprising the step of streaming data in one of the plurality of transformation components.
  4. The computer implemented method of Claim 3, wherein the staging and streaming of data are performed automatically by software without human intervention.

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2.  
3. The computer implemented method of Claim 1, wherein a source transformation component, a target transformation component, an aggregation transformation component, a rank transformation component, and a joiner transformation component perform the staging step.

3.  
4. The computer implemented method of Claim 3, wherein an expression transformation component, a filter transformation component, an update strategy transformation component, a sequence transformation component, a lookup transformation component, a stored procedure transformation component, an external procedure transformation component, and a normalizer transformation component perform the streaming step.

4.  
5. The computer implemented method of Claim 1 further comprising the step of pushing data from a first transformation component to a second transformation component.

5.  
6. The computer implemented method of Claim 1 further comprising the step of pulling data from a first transformation component to a second transformation component.

6.  
7. The computer implemented method of Claim 6 further comprising the step of pushing data from a third transformation component to a fourth transformation component.

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10. The computer implemented method of Claim 1 further comprising the step of a first transformation component pulling data from a second transformation component and pushing data to a third transformation component.

11. The computer implemented method of Claim 1 further comprising the step of executing a plurality of tasks in parallel through a plurality of the pipelines.

12. A computer-readable medium having stored thereon instructions for causing a computer to transform data in a datamart application, comprising:

- a source containing original data;
- a plurality of transformation components for manipulating data according to pre-determines behaviors;
- a mapping which specifies an order for coupling the transformation components to form one or more pipelines;
- a target for storing data generated by one or more of the pipelines.

13. The computer-readable medium of Claim 12 further comprising a memory for staging data generated by one of the plurality of transformation components.

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14. The computer-readable medium of Claim 13, wherein one of the plurality of transformation components streams data to another a subsequent one of the plurality of transformation components.

15. The computer-readable medium of Claim 14 further including instructions for automatically staging or streaming of data by each of the plurality of transformation components.

16. The computer-readable medium of Claim 15, wherein a source transformation component, a target transformation component, an aggregation transformation component, a rank transformation component, and a joiner transformation component stage data.

17. The computer-readable medium of Claim 16, wherein an expression transformation component, a filter transformation component, an update strategy transformation component, a sequence transformation component, a lookup transformation component, a stored procedure transformation component, an external procedure transformation component, and a normalizer transformation component stream data.

18. The computer-readable medium of Claim 17 further comprising instructions for pushing data from a first transformation component to a second transformation component.

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<sup>13</sup>  
19. The computer-readable medium of Claim <sup>9</sup>12 further comprising instructions for pulling data from a first transformation component to a second transformation component.

<sup>14</sup>  
20. The computer-readable medium of Claim <sup>13</sup>19 further comprising instructions for pushing data from a third transformation component to a fourth transformation component.

<sup>15</sup>  
21. The computer-readable medium of Claim <sup>9</sup>12 further comprising instructions for a first transformation component pulling data from a second transformation component and pushing data to a third transformation component.

<sup>16</sup>  
22. The computer-readable medium of Claim <sup>15</sup>21 further comprising instructions for executing a plurality of tasks in parallel through a plurality of the pipelines.

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